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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,674	01/29/2001	Teemu Tarnanen	PM276594	3264

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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
D AGOSTA, STEPHEN M	

ART UNIT	PAPER NUMBER
2683	10

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/744,674	TARNANEN ET AL.	
	Examiner	Art Unit	
	Stephen M. D'Agosta	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2-9-04 have been fully considered but they are not persuasive:

1. The examiner notes that the claim dependencies do not narrow the claims sufficiently if he were to object to just one claim. A more favorable outcome may occur if claims 2-5 were incorporated into claim 1 since this would separate the claimed system from the prior art cited (similar amending to other independent claims would help as well).

2. The applicant argues that the prior art cited for claims 1, 6-7 do not teach determining an amount of data to be transmitted and/or directing to fast channel if it will exceed a threshold. The examiner disagrees since Joensuu teaches a USSD transfer on a fast channel and Alperovich/Tiedemann teaches determining an amount of data to transfer. Tiedeman teaches a channel scheduler that collects information on how much data is to be transferred and available forward link capacity (C4, L63 to C5, L17).

3. The applicant argues that the prior art does not teach calling a non-existent number. Dezono teaches a telecommunciation system that simulates completion of an outbound call to a non-existent number (C12, ref. claim #11) which reads on the claim.

4. The applicant argues that the prior art does not teach claims 4 and 8. The examiner disagrees since Alperovich teaches sending the mobile an indication to initiate the call attempt (C3, L36-58, C4, L32-48, C5, L34-37, C6, L59-67, C7, L1-2 and C8, L19-27).

5.In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The art cited relates to the same field of endeavor and solves similar problems and hence is combinable as pointed out by the rejection and motivation statements.

6.In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). Again, the art cited relates to the same field of endeavor and solves similar problems and hence is combinable as pointed out by the rejection and motivation statements.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **Where is the support in the specification for these two newly added claims?**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4 and 6-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joensuu et al. [U.S. Patent Number 5,966,653] (hereinafter Joensuu) in view of Alperovich et al. [U.S. Patent Number 6,459,680] (hereinafter Alperovich) and Tiedemann Jr. et al. US 6,335,922.

Regarding **claim 1**, Joensuu teaches a method for ~~setting~~ performing a ~~up~~ USSD transfer [FIGs.2-6, numeral 100] for transmitting data between two parties, namely a mobile station [FIGs. 2-6, numeral 80] and a cellular communications network [FIG.2, numeral 10] wherein the USSD transfer takes place on a fast channel if the mobile station is involved in a call, and otherwise on a slow channel [col.1, lines 61-67; col.2,

lines 20-29; col.2, lines 58-60; col.4, lines 33-65]. Joensuu fails to teach the method ~~being characterized in that~~ comprising determining the amount of data to be transmitted ~~is determined~~ in the USSD transfer, and if the amount of data to be transmitted in the USSD transfer is likely to exceed a predetermined threshold, and if the mobile station is not involved in a call, directing the mobile station ~~is directed~~ to call mode for ~~switching~~ performing the USSD transfer ~~to~~ on the fast channel. However, Alperovich teaches the method being characterized in that the amountof data to be transmitted is determined, and if the amount of data to be transmitted is likely to exceed a predetermined threshold, and if the mobile station is not involved in a call, the mobile station is directed to call mode for switching the USSD transfer to the fast channel [col.2, lines 38-55; col.3, lines 36-58; col.5, lines 16-54; col.6, lines 59-67; col.7, lines 1-2; col.7, lines 60-67; col.8, lines 1-27]. Further to this point is Tiedemann, who teaches improved utilization of the CDMA forward link capacity. When the cell has a large amount of data to transmit to the remote station, **the channel scheduler collects information on how much data is to be transmitted,** the available forward link capacity for each cell in the network, and other parameters. Based on the collected information and in accordance with a list of system goals, the channel scheduler schedules the high speed data transmission by allocating a resource to the remote station and selecting a set of secondary code channels corresponding to an assigned transmission rate. The data is partitioned into data frames, and each data frame can be further partitioned into data portions. The code channel frames are transmitted over the assigned primary and secondary code channels. The remote station receives the code channel frames on each of the assigned code channels and reassembles the data portions of the code channel frames. If the demand for the forward link transmit power increases, one or more secondary code channels can be temporarily dropped, as necessary, to satisfy additional demand (C4, L63 to C5, L17).

Joensuu and Alperovich and Tiedemann are combinable because they are from the same field of endeavor, that is, improving the performance of USSD transfer in cellular systems.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Joensuu to include Alperovich/Tiedemann in order to determine if the amount of data being transmitted exceeds a threshold and if so, the mobile station is directed to call mode using the FACCH.

Regarding **claim 2,** Alperovich teaches a method ~~characterized in that~~ further comprising the mobile station is directed into call mode by initiating a call attempt [co1.3, lines 36-58; col.4, lines 32-48; col.5, lines 34-37; col.6, lines 59-67; col.7, lines 1-2; col.8, lines 19-27]. 8. Regarding claim 3, Alperovich teaches a method characterized in that the party that initiates the USSD transfer also initiates the call attempt [col.3, lines 36-58; col.4, lines 32-48; col.5, lines 34-37; col.6, lines 59-67; col.7, lines 1-2; col.8, lines 19-27]. **Regarding claim 4**, Alperovich teaches a method characterized in that the Network when initiating the USSD transfer, sends the mobile station an indication that the mobile station must initiate the call attempt [col.3, lines 36-58; col.4, lines 32-48; col.5, lines 34-37; col.6, lines 59-67; col.7, lines 1-2; col.8, lines 19-27].

Regarding **claim 6,** Joensuu teaches a mobile station [FIGs. 2-6, numeral 80], ~~adapted for setting up~~ comprising means for performing a USSD transfer [FIGs.2-6, numeral 100] for transmitting data between itself and a cellular communications network [FIG.2, numeral 10], wherein the USSD transfer takes place on a fast channel if the mobile station is involved in a call, and otherwise on a slow channel [col.1, lines 61-67; col.2, lines 20-29; col.2, lines 5860; col.4, lines 33-65]. Joensuu fails to teach a method characterized in that the mobile station is adapted to determine the amount of data to be transmitted; and initiate a call attempt for switching the USSD transfer to the fast channel if the amount of data to be transmitted is likely to exceed a predetermined threshold and if the mobile station is not involved in a call.

However, Alperovich teaches a method ~~characterized in that the mobile station is adapted to determine~~ first logic for determining the amount of data to be transmitted in the USSD transfer; and ~~initiate~~ second logic initiating a call attempt for switching the USSD transfer to the fast channel if the amount of data to be transmitted in the USSD transfer is likely to exceed a predetermined threshold and if the mobile station is not

involved in a call [col.2, lines 38-55; col.3, lines 36-58; col.5, lines 16-54; col.6, lines 59-67; col.7, lines 1-2; col.7, lines 60-67; col.8, lines 1-27].

With regard to first/second logic elements, the examiner interprets all art cited as comprising logic (eg. a processor) that provides for control/operation of the unit/phone. As one skilled in the art recognizes, this can be implemented in various ways and would include either a single or multiple logic/processor device(s). At a minimum, reference Tiedemann figure 2, #10 containing multiple logic elements performing operations.

Joensuu and Alperovich are combinable because they are from the same field of endeavor, that is, improving the performance of USSD transfer in cellular systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Joensuu to include Alperovich in order to determine if the amount of data being transmitted exceeds a threshold and if so, the mobile station is directed to call mode using the FACCH to initiate a call attempt.

Regarding **claim 7**, Joensuu teaches an arrangement for a cellular communications network [FIG.2, numeral 10], adapted for setting up USSD transfer [FIGs.2-6, numeral 100] for transmitting data between itself and a mobile station [FIGs. 2-6, numeral 80], wherein the USSD transfer takes place on a fast channel if the mobile station is involved in a call, and otherwise on a slow channel [col.1, lines 61-67; col.2, lines 20-29; col.2, lines 58-60; col.4, lines 33-65]. Joensuu fails to teach a method ~~characterized in that~~ the arrangement comprising ~~is adapted to~~: ~~determine~~ a first logic for determining the amount of data to be transmitted; and a second logic for initiating a call attempt ~~and initiate a call attempt~~ for switching the USSD transfer to the fast channel if the amount of data to be transmitted in the USSD transfer is likely to exceed a predetermined threshold and if the mobile station is not involved in a call.

However, Alperovich teaches a method characterized in that the arrangement is adapted to: determine the amount of data to be transmitted; and initiate a call attempt for switching the USSD transfer to the fast channel if the amount of data to be transmitted is likely to exceed a predetermined threshold and if the mobile station is not involved in a call [col.2, lines 38-55; col.3, lines 36-58; col.5, lines 16-54; col.6, lines 59-67; col.7, lines 1-2; col.7, lines 60-67; col.8, lines 1-27].

With regard to first/second logic elements, the examiner interprets all art cited as comprising logic (eg. a processor) that provides for control/operation of the unit/phone. As one skilled in the art recognizes, this can be implemented in various ways and would include either a single or multiple logic/processor device(s). At a minimum, reference Tiedemann figure 2, #10 containing multiple logic elements performing operations.

Joensuu and Alperovich are combinable because they are from the same field of endeavor, that is, improving the performance of USSD transfer in cellular systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Joensuu to include Alperovich in order to determine if the amount of data being transmitted exceeds a threshold and if so, the mobile station is directed to call mode using the FACCH to initiate a call attempt.

Regarding **claim 8**, Alperovich teaches an arrangement ~~characterized in that~~ where the second logic ~~it~~ is adapted to initiate a call attempt by sending to the mobile station an indication that the mobile station must initiate the call attempt [col.3, lines 36-58; col.4, lines 32-48; col.5, lines 34-37; col.6, lines 59-67; col.7, lines 1-2; col.8, lines 19-27].

Regarding claims 10-11, Joensuu is silent on wherein the mobile is adapted to initiate the call attempt before/after initiating the USSD transfer.

Joensuu does teach fast channel communications as identified above in claim 6.

Tiedemann teaches a channel scheduler/selector element/call control processor (figure 2, #12, 14a, 16 and 40a/b, 44) that provides the ability to control all facets of mobile terminal communications based on amount of data and available bandwidth. Data can be transmitted over primary and secondary channels. Hence Tiedemann has the ability to schedule when a call attempt should occur (eg. before/after initiating the USSD transfer).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Joensuu, such that wherein the mobile is adapted to initiate the call attempt before/after initiating the USSD transfer, to provide means for determining optimal times when to initiate a call based on current conditions.

Claim 5 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Joensuu, Alperovich and Tiedemann and further in view of Dezonno US 6,449,356.

Regarding **claims 5 and 9**, Joensuu teaches claim 1 **but is silent on** calling a non-existent number or itself.

The examiner interprets a phone that calls a non-existent number or itself as a test function and is known in the art. Further to this point is Dezonno who teaches a telecommunication system that simulates completion of an outbound call to a non-existent number (col. 12, ref. claim #11).

It would have been obvious to one skilled in the art at the time of the invention to modify Alperovich, such that the phone can call a non-existent number or itself, to provide testing of the operation of the system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMD
2-20-04

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600